UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

July 18, 2008

Ms. Alice Stratton
NOAA National Marine Sanctuary Program
212 Rogers Avenue
Milford, CT 06460

SUBJECT: Draft Programmatic Environmental Impact Statement for Coral Restoration in the Florida Keys and the Flower Garden Banks National Marine Sanctuaries
CEQ # 20080219; ERP # NOA-E39073-00

Dear Ms. Stratton:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the Draft Programmatic Environmental Impact Statement (Draft EIS) issued by the National Oceanic and Atmospheric Administration (NOAA) for the subject project. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment.

The Draft EIS addresses restoration of coral reefs damaged as a result of physical impact. In addition to the no-action alternative, several physical restoration technologies to stabilize and reconstruct the reef substrate and contour are addressed. Three biological restoration technologies are also considered that involve reattachment and transplantation of living coral in order to facilitate recovery. While several emerging technologies are addressed, NOAA is focusing on proven technology.

The document provides a general analysis of restoration techniques available for coral reef and coral community (hard bottom) restoration in two very different physical settings. The hard bottoms and coral reefs in the Florida Keys are in shallow waters and the reefs at Flower Garden Banks, offshore of Texas and Louisiana, start at approximately 65 feet deep. However, the communities are very similar and both are prone to anthropogenic injuries. Groundings are a main anthropogenic injury to Florida reefs, and the number reported annually is probably a small percentage of actual groundings. Important impacts to reefs at Flower Garden Banks include anchor and cable damage. Regardless of the cause of the injuries, the suite of restoration options are the same for both locations. These two sanctuaries possess extremely important marine habitat worthy of substantial restoration effort where it has been damaged.

EPA agrees with the three alternatives selected with the caveat as described, that all alternatives will be considered on a case-by-case basis. Since the alternative

technologies are not mutually exclusive, it is likely that more than one would be utilized at a damage site. While the document identifies anthropogenic reasons for the physical damage, EPA recommends that the restoration plan include cementing fragments of branching corals after tropical storms and hurricanes. Those fragments will not reattach and will be lost due to tumbling and scouring with wave action. As documented in the Draft EIS, recovery studies have shown that reattaching broken pieces of branching corals can benefit reef restoration from any kind of event.

EPA rates all alternatives LO, meaning that we have not identified any potential environmental impacts requiring substantive changes to the programmatic review. However, we have enclosed some additional comments for consideration.

Thank you for the opportunity to review and comment on this draft EIS. If you wish to discuss EPA's comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Ted Bisterfeld of my staff at 404/562-9621 (bisterfeld.ted@epa.gov)

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure: Additional EPA Comments

cc: Miles Croom, NMFS, St. Petersburg

ENCLOSURE: ADDITIONAL EPA COMMENTS ON DRAFT PROGRAMMATIC EIS FOR CORAL RESTORATION

1. The discussion of coral growth and restoration indicate that long time periods are required. We suggest adding discussion of what the time periods are for some representative species of coral. Since the result of the proposed actions would hopefully endure various perturbations well into the future, the effects of sea level rise and temperature trends on the restorations should be addressed.

2. Hundreds of invertebrate species inhabit reefs and some such as bryozoans, sponges and soft corals are referred to as encrusting to describe their nature of growth. Perhaps the community succession and potential species dominance at a damage site are factors in the decisions about what species to transplant. We suggest some discussion of whether these other reef inhabitants potentially could be involved in transplanting along with the hard coral species mentioned in the document.

3. EPA expected the Draft EIS to present data comparing the suitability of various artificial substrate materials for larval settlement and growth. It is not clear why this was not included.

4. The ease of implementation is mentioned on page 58 of the document as being a positive factor of coral reattachment/transplantation. Reattachment of branching coral species such as Acropora sp. and other hard corals would seem to be tedious and labor intensive. EPA suggests providing the level of effort needed for using this alternative on sizable damage sites.